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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/486,183	08/17/2000	Ian L Gray	540-188	3135

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EXAMINER	
AFTERGUT, JEFF H	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/486,183	GRAY, IAN L	
	Examiner	Art Unit	
	Jeff H. Aftergut	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *4-6-2004, 4-21-2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102/103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 12-14, 16, 18, 20, and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Vane for the same reasons as presented in the Office action dated January 6, 2004, paragraph 4.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 12-14, 16, 18, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vane in view of any one of Kalnin, Durand et al or Gorthala et al for the same reasons as presented in the Office action dated January 6, 2004, paragraph 6.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 4 further taken with any one of Yokota et al or Street for the same reasons as presented in the Office action dated January 6, 2004, paragraph 7.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 4 further taken with any one of Beall, Gabriele or Martin et al for the same reasons as presented in the Office action dated January 6, 2004, paragraph 8.

7. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 4 further taken with any one of Martin or Krutchkoff for the same reasons as presented in the Office action dated January 6, 2004, paragraph 9.

8. Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 4 further taken with the applicant's admitted prior art for the same reasons as presented in the Office action dated January 6, 2004, paragraph 10.

Response to Arguments

9. Applicant's arguments filed April 6, 2004 have been fully considered but they are not persuasive.

Applicant argues regarding the reference to Vane that the teachings of Figures 1 and 3 are "different embodiments" in the disclosure and are not used together (and that it would not have been obvious or possible for one to combine the features of Figure 1 with those of Figure 3 in the reference). This line of reasoning has not been found to be persuasive. Applicant is more specifically referred to: (1) the abstract of the disclosure

> "A process for continuously forming reinforced articles (24) which includes *producing a reinforcing material (13) having a plurality of superimposed layers (1-6), stitching together said layers* (1-6), wetting *said reinforcing material* (13) with a matrix material (7, 8 or 19), *forming the wetted reinforcing material* and curing or consolidating the matrix material. Each layer (1-6) of *the reinforcing material* (13) includes a plurality of unidirectional non-woven yarns or threads (10) laid side-by-side, the yarns or threads (10) in at least some of the different layers (1-6) extending in different directions. Forming of *the wetted reinforcing material* may be effected by moulding, *pultrusion* or by wrapping wetted reinforcing material around a mandrel or former (25). " (emphasis added);

(2) column 3, lines 34-51

> "The *wetted reinforcing material* may be formed in any suitable manner, as by moulding, pressing, *pultrusion* or wrapping *the wetted reinforcing material* around a mandrel or former. Preferably, *an accumulator is provided between means for producing the reinforcing material and means for forming the wetted reinforcing material*, the accumulator serving *to compensate for any slight discrepancies in the speed of operation of the means for producing the reinforcing material and the forming means and to provide a supply of reinforcing material in the event that there should be a temporary interruption in the operation of the means for producing the reinforcing material.* The

accumulator may take the form of a frame having a plurality of parallel supports or rollers thereon over which the reinforcing material is looped so that it hangs down in folds from said supporting means or rollers." (emphasis added)

noting that in Figure 3 an accumulator15 is disposed between the reinforcing material

producing means 14 and the pultrusion die 28, and; (3) column 4, lines 15-19

"According to another embodiment of the present invention the wetted reinforcing material is formed by passing it through a die, preferably a pultrusion die."

Applicant goes on to argue that :

"As opposed to the process of Figure 1, Figure 3 fails to contain any disclosure of stitching and indeed stitching would be incompatible with the pultrusion process in which the final product is both pulled and extruded (hence the name "pultrusion") through die 28."

This argument is factually incorrect as expressed in claims 1, 16, and 17 of Vane:

1. A process for forming a reinforced article, comprising the steps of:
(a) continuously supplying yarns or threads to a first station,
(b) continuously producing at said first station a reinforcing material having a plurality of superimposed layers, each layer consisting of a plurality of unidirectional non-woven yarns or threads laid side-by-side, the yarns or threads in at least two of the different layers extending in different directions,
(c) stitching together said layers,
(d) continuously passing the reinforcing material to a wetting station,
(e) wetting said reinforcing material at said wetting station with a matrix material,
(f) continuously passing the wetted reinforcing material to a forming station,
(g) at said forming station forming the wetted reinforcing material to the shape of an article, and
(h) curing or consolidating the matrix material to produce said article.

16. A process according to claim 1, wherein the wetted reinforcing material is formed by passing it through a die.

17. A process according to claim 16, wherein the die is a pultrusion die. (emphasis added)

One reading the claims of Vane would have understood that stitching would be compatible with the pultrusion process.

Applicant additionally notes that use of the reinforcing patches 3a and 4a of Figure 1 would not have been used in the operation of Figure 3 as the existence of the same in the pultrusion die would necessarily clog the die and the pultrusion operation would be inoperable. Applicant is referred to 35 USC 282:

> "A patent shall be presumed valid. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. Notwithstanding the preceding sentence, if a claim to a composition of matter is held invalid and that claim was the basis of a determination of nonobviousness under section 103(b)(1), the process shall no longer be considered nonobvious solely on the basis of section 103(b)(1). The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity." (emphasis added).

As pointed out above to applicant, the claims of Vane suggested that one would have formed the stitched reinforcement after wetting the same in a pultrusion operation. It is presumed that the operation as claimed will function. Applicant has the burden to establish that the operation of Vane will not work in the manner described by the patent. Additionally, one would not have expected that the die would clog in Vane as the additional reinforcement would have been stitched with the other layers of reinforcement and the density of the reinforcement would change but the cross sectional shape of the same would be identical in those regions where there was reinforcement to those where the additional reinforcement was added. Thus, there would be no clogging in the die in the operation of Vane.

As applicant has not addressed any other reference applied against the pending claims (more specifically the teachings of Kalnin, Durand et al, Gorthala et al, Yokota et al, Street, Beall, Gabriele, Martin et al, Krutchkoff and the applicant's admitted prior art), it is presumed

that applicant's representative agrees with the Office interpretation of these references and their relevant teachings.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
May 14, 2004